

IN THE CLAIMS:

Please amend claims 36, 41, 52-54, 71, 72, 80-84, 87, and 88 such that the pending claims read in accordance with the following listing of claims:

36. (Currently Amended) A communications system comprising: a hierarchical mesh network comprising at least a first mesh network tier and a second mesh network tier:

the first mesh network tier comprising a plurality of first mesh network tier subscriber units and a first mesh network tier sink node unit configured to wirelessly communicate with the first mesh network tier subscriber units; and

the second mesh network tier geographically at least partly overlapping the first mesh network tier and comprising a plurality of second mesh network tier subscriber units and a second mesh network tier sink node unit configured to wirelessly communicate with the second mesh network tier subscriber units; and

a connection between the first mesh network tier sink node unit and a second mesh network tier unit configured to communicate in the second mesh network tier, whereby one of the first mesh network tier subscriber units is configured to be provided with a communication path via the first mesh network tier sink node unit to said second mesh network tier unit.

37. (Previously Presented) A communications system as claimed in claim 36, wherein wireless communication in the first mesh network tier is independent of wireless communication in the second mesh network tier.

38. (Previously Presented) A communications system as claimed in claim 37, wherein wireless communication in the first mesh network tier is in a different frequency band from wireless communication in the second mesh network tier.

39. (Previously Presented) A communications system as claimed in claim 38, wherein the first mesh network tier comprises a plurality of first mesh network tier sink node units with which the first mesh network tier subscriber units are configured to wirelessly communicate.

40. (Previously Presented) A communications system as claimed in claim 39, comprising a plurality of connections, each connection being between a respective first mesh network tier sink node unit and a respective second mesh network tier unit whereby one of the first mesh network tier subscriber units is configured to be provided with a communication path via the respective first mesh network tier sink node to respective second mesh network tier unit.

41. (Currently Amended) A communications system as claimed in claim 40, comprising:

a third mesh network tier geographically overlapping the second mesh network tier and comprising a plurality of third mesh network tier subscriber units and a third mesh network tier sink node unit configured to wirelessly communicate with the ~~primary~~ third mesh network tier subscriber unit; and

a connection between the second mesh network tier sink node unit and a third mesh network tier unit ~~capable of~~ configured to communicate ~~in~~ in the third mesh network tier, whereby one of the second mesh network tier subscriber units is configured to be provided with a communication path via the second mesh network tier sink node unit to another third mesh network tier unit.

42. (Previously Presented) A communications system as claimed in claim 41, wherein wireless communication in the first mesh network tier and in the second mesh network tier is independent of wireless communication in the third mesh network tier.

43. (Previously Presented) A communications system as claimed in claim 42, wherein wireless communication in the first mesh network tier and in the second mesh network tier is in a different frequency band from wireless communication in the third mesh network tier.

44. (Previously Presented) A communications system as claimed in claim 43, wherein the second mesh network tier comprises a plurality of second mesh network tier sink node units with which the second mesh network tier subscriber units are configured to wirelessly communicate.

45. (Previously Presented) A communications system as claimed in claim 44, comprising a plurality of a connections, each connection being between a respective second mesh network tier sink node unit and a respective third mesh network tier unit whereby one of the second mesh network tier subscriber units is configured to be provided with a communication path via the respective second mesh network tier sink node to a respective third mesh network tier unit.

46. (Previously Presented) A communications system as claimed in claim 36, wherein the said communication is data communication.

47. (Previously Presented) A communications system as claimed in claim 46, wherein the said communication is packet data communication.

48. (Previously Presented) A communications system as claimed in claim 36, wherein the said communication uses an internet protocol.

49. (Previously Presented) A communications system as claimed in claim 36, wherein the said communication in the first mesh network tier is radio communication.

50. (Previously Presented) A communications system as claimed in claim 36, wherein the said communication in the second mesh network tier is radio communication.

51. (Previously Presented) A communications system as claimed in claim 42, wherein the said communication in the third mesh network tier is radio communication.

52. (Currently Amended) A communications unit ~~for operation in a communications system comprising a hierarchical mesh network comprising at least a first mesh network tier and a second mesh network tier, the first mesh network tier comprising a plurality of first mesh network tier subscriber units; and the second mesh network tier geographically at least partly overlapping the first mesh network tier and comprising a plurality of second mesh network tier subscriber units and a second mesh network tier sink node unit configured to wirelessly communicate with the~~

~~second mesh network tier subscriber units; wherein the communications unit is operable as configured to be a first mesh network tier sink node unit configured to wirelessly communicate with at least one of a plurality of the first mesh network tier subscriber units in a first mesh network tier, and further to communicate comprises a connection to a second mesh network tier subscriber unit capable of wireless communication in the a second mesh network tier, wherein the second mesh network tier geographically overlaps the first mesh network tier whereby wherein the communications unit is configured to provide a communications path between one of the first mesh network tier subscriber units may be provided with a communication path via the communications unit to and the second mesh network tier subscriber unit.~~

53. (Currently Amended) A method for providing a communication path comprising providing a wireless communications path between a first mesh network tier sink node unit and at least one of a plurality of first mesh network tier subscriber units in a first mesh network tier;

providing a further wireless communications path between the first mesh network tier sink node and a second mesh network tier subscriber unit in a second mesh network tier, wherein the second mesh network tier geographically overlaps the first mesh network tier; and

providing the at least one of the first mesh network tier subscriber units with a communication path to the second mesh network tier subscriber unit. ~~in a communications system comprising a hierarchical mesh network comprising at least a first mesh network tier and a second mesh network tier: the first mesh network tier comprising a plurality of first mesh network tier subscriber units and a first mesh network tier sink node unit configured to wirelessly communicate with the first mesh network tier subscriber units; and the second mesh network tier geographically at least partly overlapping the first mesh network tier and comprising a plurality of second mesh network tier subscriber units and a second mesh network tier sink node unit configured to wirelessly communicate with the second mesh network tier subscriber units; the method comprising providing a connection between the first mesh network tier sink node unit and a second mesh network tier unit configured to communicate in the second mesh network tier, whereby one of the first mesh network tier subscriber units is provided with a communication path via the first mesh network tier sink node to the second mesh network tier unit.~~

54. (Currently Amended) A communications system comprising a hierachical mesh network comprising at least a first mesh network tier and a second mesh network tier:

the first mesh network tier comprising a first sink node and a plurality of first communication terminals configured to wirelessly communicate with the first sink node;

the second mesh network tier geographically at least partly overlapping the first mesh network tier and comprising a second sink node and a plurality of second communication terminals configured to wirelessly communicate with the second sink node;

wherein the first sink node is further configured to operate as a second communication terminal for providing one of the first communication terminals with communications access to the second mesh network tier.

55. (Previously Presented) A communications system as claimed in claim 54, wherein wireless communication in the first mesh network tier is independent of wireless communication in the second mesh network tier.

56. (Previously Presented) A communications system as claimed in claim 55, wherein wireless communication in the first mesh network tier is in a different frequency band from wireless communication in the second mesh network tier.

57. (Previously Presented) A communications system as claimed in claim 56, wherein the first mesh network tier comprises a plurality of first mesh network tier sink node units with which the first communication terminals are configured to wirelessly communicate.

58. (Previously Presented) A communications system as claimed in claim 57, comprising a plurality of a connections, each connection being between a respective first mesh network tier sink node unit and a respective second mesh network tier unit whereby one of the first mesh network tier communication terminals is configured to be provided with a communications access via the respective first mesh network tier sink node unit to the second mesh network tier.

59. (Previously Presented) A communications system as claimed in claim 58, comprising:

a third mesh network tier geographically at least overlapping the second mesh network tier and comprising a plurality of third mesh network tier communication terminals and a third mesh network tier sink node unit configured to wirelessly communicate with the third mesh network tier communication terminals; and
a connection between a second mesh network tier sink node unit and a third mesh network tier unit configured to communicate in the third mesh network tier, whereby one of the second mesh network tier communication terminals is configured to be provided with communications access via the second mesh network tier sink node unit to the third mesh network tier.

60. (Previously Presented) A communications system as claimed in claim 59, wherein wireless communication in the first mesh network tier and in the second mesh network tier is independent of wireless communication in the third mesh network tier.

61. (Previously Presented) A communications system as claimed in claim 60, wherein wireless communication in the first mesh network tier and in the second mesh network tier is in a different frequency band from wireless communication in the third mesh network tier.

62. (Previously Presented) A communications system as claimed in claim 61, wherein the second mesh network tier comprises a plurality of second mesh network tier sink node units with which the second mesh network tier communication terminals are configured to wirelessly communicate.

63. (Previously Presented) A communications system as claimed in claim 62, comprising a plurality of a connections, each connection being between a respective second mesh network tier sink node unit and a respective third mesh network tier unit whereby one of the second mesh network tier communication terminals is configured to be provided with a communications access via the respective second mesh network tier sink node unit to the third mesh network tier.

64. (Previously Presented) A communications system as claimed in of claim 63, wherein the said communication is data communication.

65. (Previously Presented) A communications system as claimed in claim 64, wherein the said communication is packet data communication.

66. (Previously Presented) A communications system as claimed in claim 54, wherein the said communication uses an internet protocol.

67. (Previously Presented) A communications system as claimed in claim 54, wherein the said communication in the first mesh network tier is radio communication.

68. (Previously Presented) A communications system as claimed in claim 54, wherein the said communication in the second mesh network tier is radio communication.

69. (Previously Presented) A communications system as claimed in claim 60, wherein the said communication in the third mesh network tier is radio communication.

70. (Canceled).

71. (Currently Amended) A communications unit as claimed in claim ~~5270~~, configured to~~the~~ wireless communication in the first mesh network tier ~~is being independently~~ of wirelessly communicating~~ion~~ in the second mesh network tier.

72. (Currently Amended) A communications unit as claimed in claim 71, configured to~~the~~ wirelessly communicate~~ion~~ in the first mesh network tier ~~being in~~at a different frequency band from ~~wireless communication in~~ the second mesh network tier.

73. (Canceled).

74. (Canceled).

75. (Canceled).

76. (Canceled).

77. (Canceled).

78. (Canceled).

79. (Canceled).

80. (Currently Amended) A communications unit as claimed in claim 5279, configured to wirelessly~~the said communication being data communication.~~

81. (Currently Amended) A communications unit as claimed in claim 80, the wireless data~~said communication being packet data communication.~~

82. (Currently Amended) A communications unit as claimed in claim 5270, configured to~~the said communication using an internet protocol.~~

83. (Currently Amended) A communications unit as claimed in claim 5270, configured to~~the said communication in the first mesh network tier using~~being radio communication.

84. (Currently Amended) A communications unit as claimed in claim 5270, configured to~~the said communication in the second mesh network tier using~~being radio communication.

85. (Canceled).

86. (Canceled)

87. (Currently Amended) A processor configured to execute a computer program at a

communications unit to provide a communications path comprising:

providing a wireless communications path between a first mesh network tier sink node unit and at least one of a plurality of first mesh network tier subscriber units in a first mesh network tier;

providing a further wireless communications path between the first mesh network tier sink node and a second mesh network tier subscriber unit in a second mesh network tier, wherein the second mesh network tier geographically overlaps the first mesh network tier; and

providing the at least one of the first mesh network tier subscriber units with a communication path to the second mesh network tier subscriber unit,~~the communications unit operating in a communications system including a hierarchical mesh network comprising at least a first mesh network tier and a second mesh network tier, the first mesh network tier comprising a plurality of first communication terminals; the second mesh network tier geographically at least partly overlapping the first mesh network tier and comprising a second sink node and a plurality of second communication terminals capable of wireless communication with the second sink node; the computer program being configured to cause the communication unit to operate as a first sink node capable of wireless communication with the first communication terminals and as a second communication terminal for providing the first communication terminals with communications access via the communications unit to the second mesh network tier.~~

88. (Currently Amended) A controller for a communications unit operating in a communications system configured to provide a communications path comprising:

providing a wireless communications path between a first mesh network tier sink node unit and at least one of a plurality of first mesh network tier subscriber units in a first mesh network tier;

providing a further wireless communications path between the first mesh network tier sink node and a second mesh network tier subscriber unit in a second mesh network tier, wherein the second mesh network tier geographically overlaps the first mesh network tier; and

providing the at least one of the first mesh network tier subscriber units with a communication path to the second mesh network tier subscriber unit~~including a hierarchical mesh network comprising at least a first mesh network tier and a second mesh network tier, the first mesh~~

~~network tier comprising a plurality of first communication terminals; the second mesh network tier geographically at least partly overlapping the first mesh network tier and comprising a second sink node and a plurality of second communication terminals capable of wireless communication with the second sink node; the controller being configured to cause the communication unit to operate as a first sink node capable of wireless communication with the first communication terminals and as a second communication terminal for providing one of the first communication terminals with communications access via the communications unit to the second mesh network tier.~~